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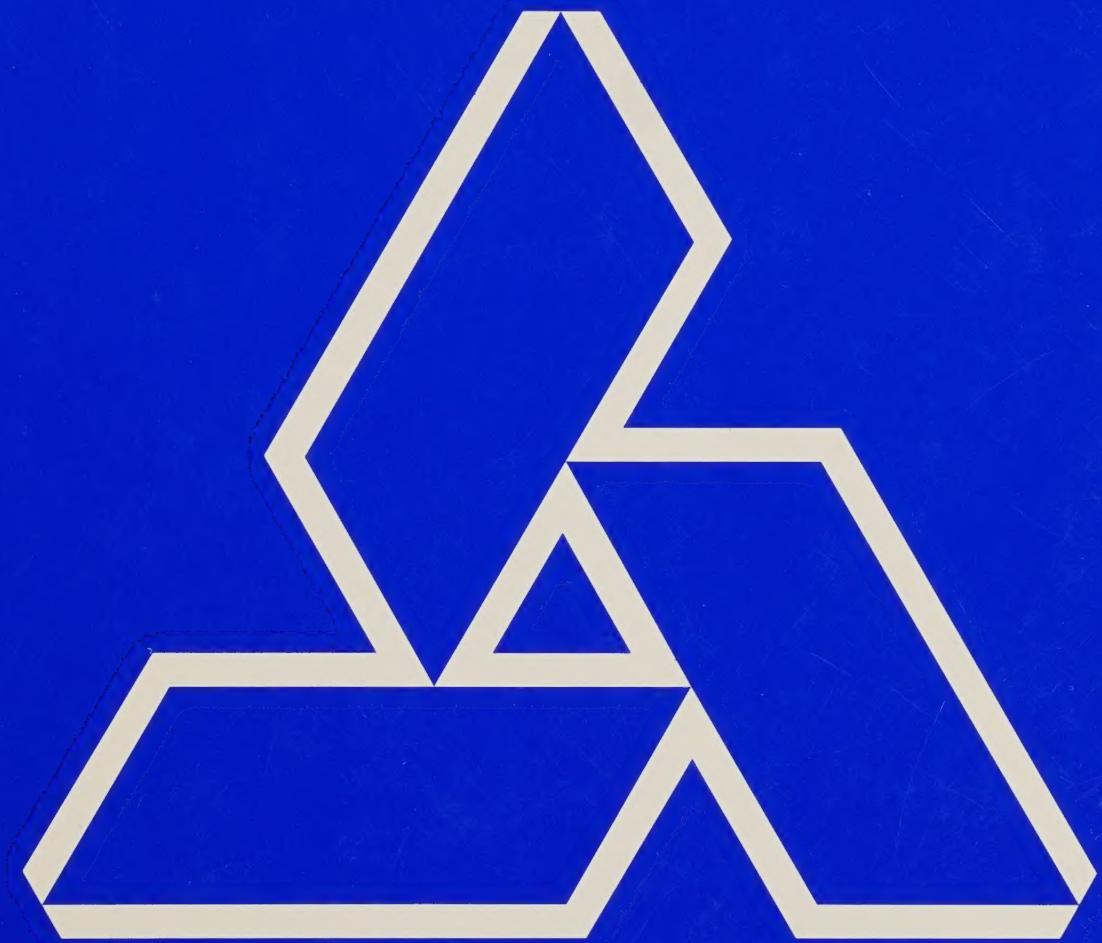


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# Continuing the Momentum

## History, Growth, and Future Challenges



The Joint Council on Food and Agricultural Sciences was established by Congress in 1977 to encourage and coordinate research, extension, and higher education activities in the food and agricultural sciences throughout the United States. Its members, who are from both the public and private sectors, represent producers, industry, and State and Federal agencies and institutions. The Council's role was strengthened in the 1981 Agriculture and Food Act, which directed the Department to improve the planning and coordination of research, extension, and higher education within both the public and private sectors and to relate the Federal budgeting process to the overall functioning of the system. The Joint Council's responsibilities were reaffirmed in the Food Security Act of 1985.

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The Joint Council recently decided to prepare and publish *special reports*, in addition to those mandated by Congress, that deal with topics or issues significant to the food and agricultural science and education system. This topical report is one such report.

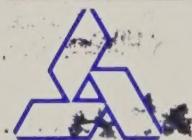
*Continuing the Momentum: History, Growth, and Future Challenges* summarizes the planning activities within the food and agricultural science and education system, relates the creation and initial activities of the Joint Council on Food and Agricultural Sciences, and sets forth future challenges facing the Council.

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The Joint Council publishes a number of Congressionally mandated reports. The first such report was a long-term (20 years) *Needs Assessment* of the food, fiber, and forest products sectors. This report established the initial planning document that has guided the Joint Council as it fulfills its other responsibilities.

The Joint Council prepares three other regularly published reports. A *Five Year Plan* is published biennially, and denotes the issues and challenges facing the food and agricultural science and education system together with the goals and objectives necessary to satisfactorily address them. The annual *Priorities Report* outlines the current national emphases of research, extension and higher education for the next fiscal year. An *Accomplishments Report*, also published annually, summarizes significant accomplishments of the food and agricultural science and education system.

These three reports constitute an overall strategic planning and review process for the food and agricultural science and education system. This process facilitates and enhances the coordination, planning, and financial relationships through which short-term and longer term future needs are defined, goals and objectives established, and accomplishments noted. The reports provide the foundation for planning an efficient and effective means for meeting the future national and international demands for food, fiber, and forest products.



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The Joint Council symbol represents the Council's primary responsibility: to improve coordination and planning among research, extension, and higher education programs. It also characterizes the cooperative spirit that exists among the Federal, State, and private organizations and institutions within the food and agricultural science and education system.



## Joint Council on Food and Agricultural Sciences

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Secretariat:  
Suite 302 Aerospace Building  
U.S. Department of Agriculture  
Washington, D.C. 20250-2200

November 7, 1988

Honorable Richard E. Lyng  
Secretary of Agriculture  
Washington, DC 20250

Dear Mr. Secretary:

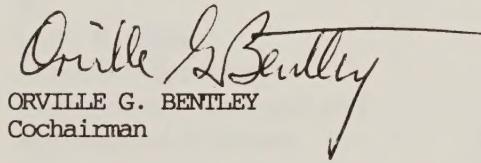
In 1988, the Joint Council on Food and Agricultural Sciences completed its first ten years of efforts dedicated to improving planning and coordination within the food and agricultural science and education system. To mark this achievement and to set the stage for future activities, we asked Dr. Larry Miller, Executive Secretary to the Joint Council, to prepare a special Joint Council report that:

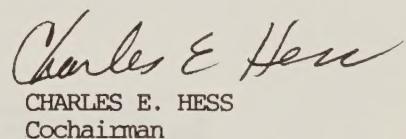
- o provides a historical perspective of planning and coordination efforts within the food and agricultural sciences;
- o summarizes the growth and evolution of the Joint Council; and
- o sets the stage for future Joint Council endeavors.

This report is enclosed for your information and use. We believe it accurately, yet concisely, provides an excellent perspective of the past, describes the activities of the present, and delineates challenges for the future.

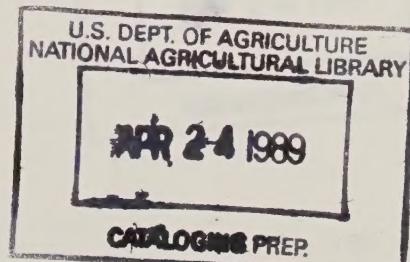
On behalf of the Joint Council, we are pleased to convey Continuing the Momentum: History, Growth, and Future Challenges to you.

Sincerely,

  
ORVILLE G. BENTLEY  
Cochairman

  
CHARLES E. HESS  
Cochairman

Enclosure

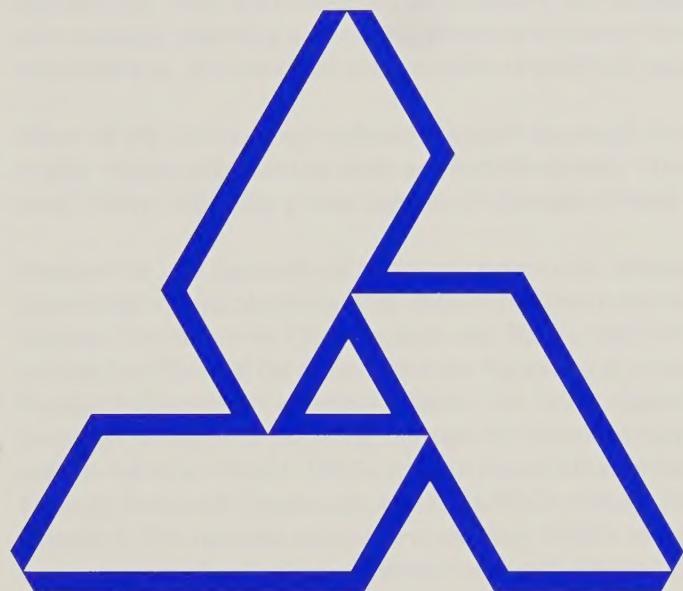


The Joint Council fosters coordination and planning in public and private research, extension, and teaching in the food and agricultural sciences.

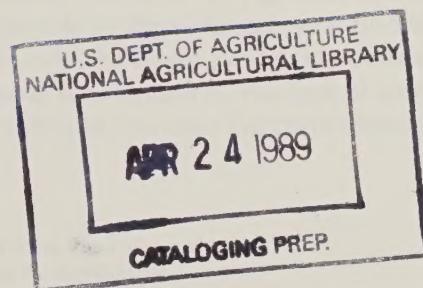


# Continuing the Momentum

History, Growth, and Future Challenges



By  
Larry R. Miller  
Executive Secretary  
Joint Council on Food and Agricultural Sciences



Editorial services were provided by Mary Ann Wamsley, Information Impact. Typing was done by Anna Marie Salter, CSRS. Mark R. Bailey, Leader, Joint Council Reports Staff gave insightful and significant advice and assistance during the preparation of this report.



## Introduction

In the aftermath of World War II, American agriculture underwent dramatic adjustments. The 1940's and 1950's were a time of massive demographic shifts and rapid technological development. Agriculture's major technological advances resulted from increased mechanization and expanded use of agricultural chemicals. The unparalleled production in U.S. agriculture was the envy of the world. Agricultural research and extension led the way in integrating knowledge to improve production efficiency, and universities proudly produced agricultural scientists and educators for the next generations.

From the late 1960's through the 1970's, however, social responsiveness was a growing concern. As public agricultural research expanded rapidly, critics expressed concern that it often was not focused toward long-term national issues and concerns and that researchers were giving inadequate attention to the long-term consequences of new technology. They also criticized unnecessary duplication of effort and urged regional and national planning and coordination to enhance the social responsiveness, cost-effectiveness, and political acceptability of publicly supported agricultural research.

Many of the critics of agricultural research received considerable attention. Through highly visible publications such as *Hard Tomatoes, Hard Times*<sup>1</sup> and the "Pound Report,"<sup>2</sup> they called for a new agenda for the agricultural research community.

### Initial Planning Efforts— Research, Extension, Higher Education

Meanwhile, the agricultural research community already had taken steps to improve coordination and planning. The State experiment stations, through the Experiment Station Committee on Organization and Policy (ESCOP)<sup>3</sup>, and the Department of Agriculture had formed the Committee on Agricultural Science (1962) and the Agriculture Research Planning Committee (1964). The forest research community was actively involved in research planning through the McIntire-Stennis Cooperative Forestry Research Advisory Board (1962) and the Association of State College and University Forestry Research Organizations (ASCUFRO) (1964). The Current Research Information System (CRIS) became available in the late 1960's to assist in information management and research coordination. Regional research funding continued in accordance with the authorization in the Research and Marketing Act of 1946.

The Agricultural Research Policy Advisory Committee (ARPAC) was formed in 1969 to help coordinate State and Federal research planning activities. By 1974, ARPAC membership had broadened to include forestry, the 1890 land-grant institutions, and USDA agencies. ARPAC further broadened its role by developing 5-year priorities and dealing with major issues such as the concern over the future availability of food. Despite its considerable success, ARPAC's potential was limited by the lack of an official congressional sanction, inadequate support staff, and less than full commitment by many of its member institutions.

<sup>1</sup>Hightower, J. (1972). *Hard Tomatoes, Hard Times: The Failure of the Land-Grant College Complex*, Agribusiness Accountability Project, Washington, D.C.

<sup>2</sup>National Research Council. (1972). *Report of the Committee on Research Advisory to the U.S. Department of Agriculture*, (often referred to as the "Pound Report") National Technical Information Service, Springfield, Va.

<sup>3</sup>ESCOP is an executive committee of the experiment station section of the Division of Agriculture, National Association of State Universities and Land-Grant Colleges.

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Although the Extension community was not using these same kinds of structured regional and national planning and priority-setting processes, the Extension Committee on Organization and Policy (ECOP)<sup>4</sup> worked with USDA to conduct several major studies that helped focus extension activities on the significant issues. For example, the 1958 publication *The Cooperative Extension Service...Today: A Statement of Scope and Responsibility*<sup>5</sup> emphasized the need to reach a wider array of interest groups with educational services.

Extension, too, faced the impacts of the social conflicts that permeated the United States during the 1960's and 1970's and responded by increasing its social and economic development programs. Recommendations were outlined in the 1968 report *A People and a Spirit*.<sup>6</sup> As the 1980's began, evaluations and reviews of extension activities led to a revised policy statement entitled *Extension in the 80's*.<sup>7</sup> During the mid 1980's the Cooperative Extension System launched a major effort to refocus its program priorities around significant national issues. It also had a Futures Task Force conduct a public review of its program delivery and organizational systems. Formal planning activities involving both research and extension were minimal in the 1960's and 1970's, however, especially at the regional and national levels. Regional planning was not formalized nor aggressively encouraged by the extension community, mainly because most programs are implemented at the State level.

During the late 1960's and 1970's, the resident instruction community experienced much larger enrollments, particularly in forestry and in the environmental sciences. Significant changes in the composition of the student population also occurred at this time. Enrollments peaked in the late 1970's and have subsequently dramatically declined at many institutions. These changes raised important questions concerning the type of curriculum needed for the new student population. They were addressed in a study conducted by the Resident Instruction Committee on Organization and Policy (RICOP)<sup>8</sup> to determine the most appropriate curriculum. RICOP also served as a forum for the exchange of information among its members and for planning at the university level. While information exchange took place for the purpose of improving academic program design and delivery, there was little national or regional planning or priority-setting before the 1980's. Formal linkages did not exist between RICOP and the USDA because agricultural teaching responsibilities resided in the Department of Education.

<sup>4</sup>ECOP is an executive committee of the extension section of the Division of Agriculture, National Association of State Universities and Land-Grant Colleges.

<sup>5</sup>*The Cooperative Extension Service Today: A Statement of Scope and Responsibility*. (1958). Madison, Wi.: Extension Committee of Organization and Policy, Subcommittee on Scope and Responsibility.

<sup>6</sup>*A People and a Spirit*. (1968). (A Condensation of the Report of the Joint USDA-NASULGC Study Committee on Cooperative Extension), Fort Collins, Co.: Colorado State University, Printing and Publications Service.

<sup>7</sup>*Extension in the 80's*. (1983). Madison, Wi.: University of Wisconsin, Program Development and Evaluation of the Cooperative Extension Service.

<sup>8</sup>RICOP is an executive committee of the resident instruction section of the Division of Agriculture, National Association of State Universities and Land-Grant Colleges.

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The 1977 Farm Bill designated USDA as the Federal Government's lead agency for higher education in the food and agricultural sciences. The USDA Higher Education Programs office was not established until 1978, following the transfer of responsibilities to USDA.

Throughout the 1960's and 1970's, research, extension, and higher education activities at the State and institutional level were not being questioned by the critics to the same degree as were Federal activities. Even so, although considerable planning and priority-setting were occurring at those levels, the efforts were not considered adequate.

### **A Congressional Mandate**

Congress concluded that there was a problem of insufficient coordination among agencies conducting Federally supported research and expressed concern that research results were not being transferred efficiently to appropriate user groups. Additionally, Congress clearly implied that there should be a single voice to represent the food and agricultural science and education system. In response to these needs, Congress established the Joint Council on Food and Agricultural Sciences in 1977.

In Title XIV of the Food and Agriculture Act of 1977, Congress stated: "The primary responsibility of the Joint Council shall be to foster coordination of the agricultural research, extension, and teaching activities of the Federal Government, the States, colleges and universities, and other public and private institutions and persons involved in the food and agricultural sciences."

Congress also charged the Joint Council with the responsibility to:

- provide a forum for exchange of information.
- analyze and evaluate the economic, environmental, and social impacts of agricultural research, extension, and teaching programs and submit annual reports identifying high-priority research areas.
- develop and review the effectiveness of a system for compiling, maintaining, and disseminating information about federally supported agricultural research or extension projects, including private agricultural research and extension to the extent possible.
- develop, review, and evaluate memorandums of understanding.
- develop recommendations describing current and long-range needs, priorities, and goals in the food and agricultural sciences.
- recommend coordinated national and regional agricultural research, extension, and teaching programs.
- report on significant agricultural achievements.

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The 1977 legislation that created the Joint Council was significant for two reasons. First, the congressional mandate gave the Joint Council a high degree of visibility. Second, the new measure provided for broader responsibilities and wider member representation than had existed in previous planning bodies. The responsibilities spanned coordination, planning, and evaluation in the areas of public agriculturally related research, extension, and teaching. Linkages to other components of the food and agricultural science and education system are illustrated in Appendix 1.

The broadened membership included land-grant universities (both 1862 and 1890 universities), State colleges and universities (non-land-grant institutions), USDA science and education agencies, the White House Office of Science and Technology Policy (OSTP), foundations, and private industry. In addition to the traditional agricultural representation, home economics, veterinary medicine, and forestry were included as part of the planning process. Appendix 2 shows the organizational representation on the Joint Council.

Higher education (teaching) was now a partner along with research and extension. This addition was particularly important to the non-land-grant colleges and universities, another new group invited to participate in the planning activities.

Thus, the Council was designed to provide a forum through which broad food and agricultural science issues could be addressed by a diverse but interested group, including many entities and organizations that had not been a part of traditional agricultural planning and coordination endeavors.

## **Organizational Structure of the Joint Council**

**Use of Existing Infrastructure:** To minimize duplication of efforts, the Council decided to use existing planning and coordination mechanisms such as ESCOP, ECOP, RICOP, ASCUFRO, and the organizational structure established by ARPAC. This took advantage of common interests and built upon existing linkages.

**Membership Appointments:** Nominations for membership on the Joint Council are submitted to the USDA Assistant Secretary for Science and Education by the member organizations. Recommendations are reviewed by the Executive Committee of the Joint Council and forwarded to the Secretary of Agriculture for selection. Members are appointed for a maximum of two 2- or 3-year terms.

**National Committees and Regional Councils:** To fulfill the congressional mandate, the Joint Council established national committees for research, extension, and higher education (teaching) to ensure a national perspective for each function. Regional councils of the Joint Council were established to provide regional coordination and integration of research, extension, and higher education activities. The Committees and Councils were encouraged to take an active role in selecting priorities, improving coordination, raising issues for discussion, and submitting recommendations to the Joint Council. While the establishment of four regional councils was envisioned, only two (Northeast and Western) currently function as Joint Council entities and formally contribute to the Joint Council planning and priority-setting activities. Each Committee and Council has established a mission statement, a procedure for selecting and rotating membership, and operating procedures.

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**Cochairs:** Two cochairs provide leadership to the Joint Council. The enabling legislation identifies the USDA Assistant Secretary for Science and Education as one cochair and a nonfederal member of the Council as the other.

**Executive Committee:** An Executive Committee provides overall guidance for the Council and recommends policy and procedures for the Council's consideration. The Executive Committee includes the cochairs of the Council and a small number of Council members selected by the cochairs.

**Executive Secretary:** The Executive Secretary, who reports to the cochairs of the Joint Council, carries out the daily management of the Council with guidance from the cochairs and the Executive Committee as needed. The Executive Secretary recommends and develops meeting agendas; plans, organizes, and provides followup to the Joint Council and Executive Committee meetings; manages the operating budget; facilitates Joint Council membership nominations; actively participates in the meetings of the National Committees and Regional Councils to assure a direct linkage to the Joint Council; and coordinates and provides liaison with numerous other organizations and groups. The Executive Secretary also works closely with the Council's reports staff and provides advice and guidance, as appropriate.

**Reports Staff:** The Council recognized that annual reports of priorities and accomplishments would be necessary in order to meet Congressional mandates. Initially, from 1978-1982, the Joint Planning and Evaluation Staff of the Science and Education Administration supplied staff support for preparing these reports. However, because USDA reorganization abolished the Joint Planning and Evaluation Staff and because additional reports were mandated by the 1981 Farm Bill, it was necessary to establish a Joint Council reports staff and de facto staff leader. The Joint Council reports are currently prepared by a staff consisting of representatives from USDA science and education agencies (ARS, CSRS, ES, ERS, and FS). One representative is appointed as a full-time leader of the Reports Staff by the Council cochairs; the other members serve on a part-time basis. Appendix 3 provides a diagram of the Joint Council operational organization.

**Reports:** The process for preparing the mandated reports has continually improved throughout the history of the Council. Joint Council members, National Committee and Regional Council members, numerous scientists and educators, and other leaders in the food and agricultural sciences are directly involved in preparing and reviewing the reports. Priorities are identified annually by each National Committee and Regional Council and then submitted to the Joint Council. The Council reviews these recommendations and selects and ranks national priorities for submission to the Secretary of Agriculture. The National Committees also submit examples of science and education accomplishments, from which the Council selects a representative sample to be included in the annual accomplishments report. Preparation of the biennial Five-Year Plan for the Food and Agricultural Sciences involves the Joint Council members as well as several selected scientists and administrators in industry, universities, and USDA. A summary of the Joint Council publications is shown on the inside cover of this report.

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## Growth of the Council

Following the original organization and definition of responsibilities in early 1978, the Joint Council initiated several activities. In its early stages, the Council concentrated on information sharing, program analyses, and budget development. The Council members strove to define and gain an understanding of the potential role of the Council and to establish a credible organization that could make a significant contribution to improving coordination and planning. As the Council matured and embarked on significant projects, the mutual respect that developed among the members helped reduce tensions and apprehensions.

The role of the Joint Council was strengthened by the Agriculture and Food Act of 1981, which directed USDA to improve planning and coordination of research, extension, and higher education within the public and private sectors, and to relate Federal budget development and program management to these processes. Congress requested the Secretary of Agriculture to develop a long-term needs assessment (20 to 30 years) for food, fiber, and forest products and to describe the research, extension, and higher education requirements to meet the identified needs. The Secretary asked the Joint Council to fulfill the responsibility.

During the time when the long-term needs assessment was being initiated, USDA implemented a significant reorganization of the science and education related agencies resulting in the abolishment of the Science and Education Administration and, thereby, its Joint Planning and Evaluation Staff. As a result, the need for planning and coordination at the national level was increased considerably.

The planning, preparation, and review of the *Needs Assessment* (published in January 1984) was a major undertaking which permitted all the Joint Council members to make positive contributions to an important effort. This task served as a vehicle for team building, contributed to the rapid maturing of the Council, and provided a concrete rallying point for its members. As the needs were being formalized, they were kept relatively broad. As a consequence, consensus was attained and all members were able to positively support the recommendations. The *Needs Assessment* was viewed as a document that represented a consensus of the entire food and agriculture system.

Concurrent with the preparation of the *Needs Assessment*, the Council established a process for developing national priorities for research, extension, and higher education. The process incorporated a systematic procedure for actively involving representatives from all sectors of the science and education system. In 1983 a single set of national priorities was selected and ranked for the fiscal year 1985 science and education budget. Specific budget recommendations were deliberately avoided, thereby setting the stage for broad support for each priority topic. This was the first time that a brief list of combined research, extension, and higher education priorities had been selected and ranked by such a broad array of scientific disciplines and public educational institutions. This process of selecting and ranking priorities evolved to become a significant activity which integrated input from many organizational components of the food and agricultural science and education system. In the 1980's numerous major planning and issue identification activities served as valuable input to the Joint Council. Examples include: Research initiatives developed by ESCOP/USDA-Cooperative State Research Service and the national initiatives for the Extension System developed by ECOP/USDA-Extension Service.

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This consensus-building process promoted coordination of the research, extension, and teaching functions while stressing individual and combined contributions. Competition among the actors within the science and education system was dissipated through focusing on a common set of priorities.

This approach has led to many successful efforts, particularly those cutting across multiple functions and organizations. For example:

- The Council provided a single focus on the need to enhance the development of scientific expertise in the food and agricultural sciences, a primary responsibility of colleges of agriculture and related sciences. This was supported not only by the higher education community but also by research and extension components in agriculture, home economics, veterinary sciences, and forestry in the land-grant universities and other State colleges and universities.
- The Council's continued emphasis on agricultural biotechnology helped set the stage and provide justification for an expanded competitive research grants program. The deliberations on biotechnology involved representatives from numerous universities, private industry, USDA agencies, and other agencies such as the National Academy of Sciences, the National Institutes of Health, the National Science Foundation, and the Office of Science and Technology Policy.
- The priorities selected by the Joint Council have been firmly espoused by the USDA Assistant Secretary for Science and Education. They have been used in discussions with administrators and policymakers throughout the food and agricultural sciences system and also with such groups as the U.S. Congress, Office of Management and Budget, Office of Science and Technology Policy, the National Science Foundation, the Department of Defense, the Environmental Protection Agency, and the National Institutes of Health. Through these efforts, agriculture has become an important part of the science arena, and the interface between science and policy has been strengthened.

### **Credibility Enhancement of the Council**

The Council became more and more aware of the need to link science to policy and to societal issues in the planning and priority-setting processes. The Council exemplified these linkages in the focus of the issues presented in the Council reports. The Council's credibility grew as it became a recognized voice for the food and agricultural science and education system. Consequently, the State-Federal science and education partnership has been strengthened. As the Council's planning activities continued to evolve, more emphasis was placed on developing program goals and objectives that related to broad issues and goals rather than on proposing specific programs. This further reduced competition and tension among the participants in the planning process.

The planning documents—the *Five-Year Plan for the Food and Agricultural Sciences* and the *Fiscal Year Priorities for Research, Extension, and Higher Education*—became more widely used by university and USDA administrators. Selection of highly respected scientists and educators to contribute significant sections of the reports strengthened the scientific credibility of the documents and increased "grassroots" awareness of Council activities. Resource allocation at the university and Federal level became increasingly linked, at least in a general way, to the areas of emphasis embraced in the Joint Council planning documents.

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Several other organizations formed in the past few years complement the Council's activities:

- The Council of Agriculture Research, Extension, and Teaching (CARET) was formed in 1982 by the Council of Administrative Heads of Agriculture (CAHA).<sup>9</sup> CARET, a voluntary citizens organization, provides support for land-grant and USDA programs across the three functions.
- The National Association of Professional Forestry Schools and Colleges (NAPFSC) was formed in 1981. NAPFSC established functional committees for planning and coordination to support forestry research, extension, and teaching programs at the university level.
- Congress created the National Agricultural Research and Extension Users Advisory Board in its 1977 Farm Bill to advise the Executive Branch and Congress on agricultural science and education issues from a user's viewpoint. The Joint Council and the Users Advisory Board meet jointly at least once each year to exchange information and discuss current important agricultural issues.

Many additional factors have played a role in developing the Joint Council's credibility. The Council has dealt with an extensive array of broad issues, including rural revitalization, competitiveness and profitability, family economic well-being, and human capital development. In 1984 the Council made a special effort to improve international cooperation and coordination. An invitation was extended to the cochairs of the International Science and Education Council (ISEC) and the chairman of the Board on International Food and Agricultural Development (BIFAD) to actively participate in Joint Council activities.

The Department and the nominating organizations make a conscientious effort to select the best representatives for membership on the Council. Members are strongly encouraged to provide two-way communication between the Council and the organizations that they represent. Actively involving each member in the activities of the Council continues to maintain a sense of *esprit de corps* among the members.

Joint Council meetings are designed to provide (a) information exchange, (b) an opportunity for decisionmaking and/or recommendations, and (c) challenging discussion on significant issues. Council members are actively involved in each component of the meetings. Council members do not simply endorse staff-prepared reports; instead, working sessions provide members the opportunity to review draft reports and to make specific comments and suggestions. All members are included in discussions of the future direction and emphasis of the Council. This self-evaluation and goal-setting process reinforces *esprit de corps* and enthusiasm.

<sup>9</sup>CAHA is a council of the Division of Agriculture, National Association of State Universities and Land-Grant Colleges.

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## **Future Growth of the Council**

The Council recognizes that its role will change as new challenges and issues arise. Some future directions are already apparent:

- The need to better illustrate how the accomplishments of the science and education programs contribute to resolving societal problems.
- The need to communicate with a wider public audience to foster greater appreciation for the significant role of food and agricultural science and education in bettering societal conditions.
- The need to encourage interdisciplinary and interagency activities to more efficiently and more effectively solve complex problems.
- The need to bring into the forefront emerging issues which research, extension, and teaching systems will address in the future.

The Joint Council has attained such a level of maturity and recognition within the system that the procedures for obtaining information and preparing mandated reports have been clearly accepted. The current process ensures that both the Council's deliberations and its published reports have the benefit of significant contributions from a wide variety of interests, both within and outside the system.

As a changing group operating in a changing environment, however, the Joint Council faces situations that can affect its future directions. As a result of normal rotations and changes in professional positions, for example, 30 percent of the membership sometimes changes within a period of less than 2 months. Changes in administrations, too, can result in membership changes and shifts in the emphasis given the Council by the Secretary's Office.

The Council must continue to face the challenge of maintaining the continuity and momentum necessary to be a significant voice in the food and agricultural science and education policy arena if it is to satisfactorily carry out its responsibilities.

## **Assuring Continuity and Momentum**

As the Council continues to mature and accept more complex responsibilities, a significant portion of its agenda will focus on providing the leadership and guidance for setting program goals, facilitating the exchange of information on complex issues, and articulating the societal benefits of the food and agricultural science and education system.

**Expanded Mission and Scope:** The Joint Council recognizes and fully supports its primary mission of (1) facilitating coordination and planning within the food and agricultural science and education system and (2) linking that planning with the budget development process. To assure that it will be able to exercise its leadership responsibilities in the future, however, the Council has outlined several actions and tasks that expand the mission and scope of its activities.

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Strengthening the coordination, planning, and facilitation roles of the Council and its individual members will be given high priority. The Council also will place more emphasis on identifying emerging issues that affect the food and agricultural science and education system. To that end, the Council will pursue the following:

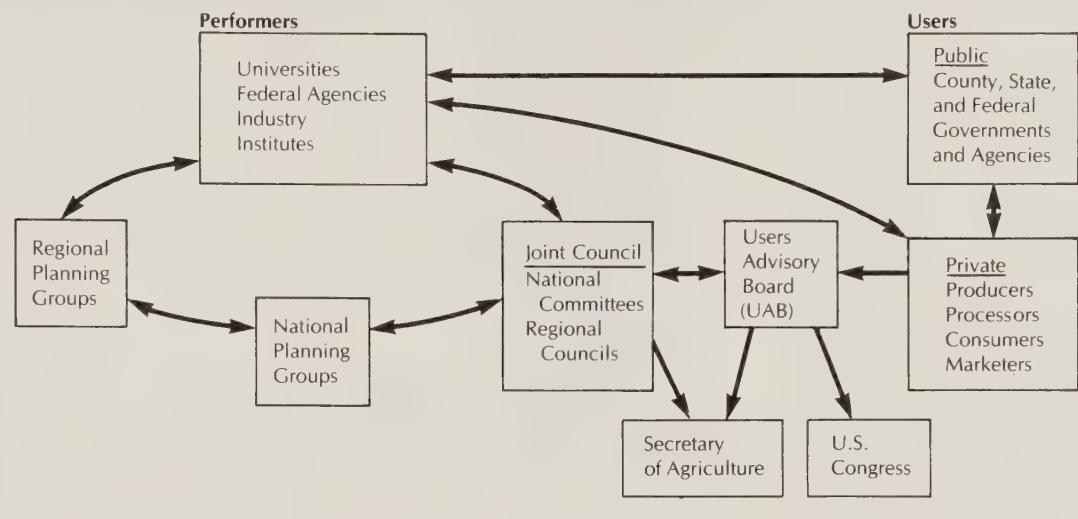
- Broaden the base of input for planning, coordination, and the definition of problems.
  - Identify and seek the involvement of appropriate public and private audiences that have interest in, are affected by, or have an effect on Council activities.
  - Expand the Council's capability to organize and conduct analyses and evaluations of the economic, environmental, and social impacts of science and education programs.
- Expand the use of Council-generated information to improve public understanding of the societal benefits of research, extension, and teaching.
  - Give greater emphasis to conveying appropriate Council-generated information and other pertinent information to groups that have an impact upon Council activities, such as congressional committees, the Office of Management and Budget, the Environmental Protection Agency, and other agencies outside USDA.
  - Improve the linkages of priorities and areas of program emphasis to budget development across the public arenas.
  - Organize briefing material for new Council members and other interested groups that explains the Council's history, responsibilities, organization, and operating procedures.
- Prepare and distribute information in addition to mandated reports.
  - Prepare monographs or issue papers, as appropriate, on significant issues, both current and emerging.
  - Facilitate and encourage symposiums/forums to generate alternative solutions to defined problems, identify the appropriate entities for action, and assess the significance of emerging issues.
  - Design and distribute other products, as appropriate, that enhance the planning and coordination role of the Joint Council.

## Conclusion

The Joint Council on Food and Agricultural Sciences has reached a significant level of maturity through consensus building and improved communication in the food and agricultural sciences. Throughout its period of growth, the Joint Council adopted very few formal operating procedures, preferring instead to permit procedures and linkages to be formed as they appeared to work best. Recognizing its expanded responsibilities, the increasing complexity of its procedures, and the increased significance of its reports, the Council has determined that a better specification of its mission, responsibilities, and future agenda is needed to help assure continuity and momentum into the future. A resilient structure will be encouraged to allow the Council to effectively respond to the issues and challenges that face the food and agricultural science and education system in the future. The Council accepts the challenge to elevate its agenda to a higher plane by providing stronger leadership to the food and agricultural science and education system.

## Appendix 1

### Food and Agriculture Science and Education System



## Appendix 2

### Organizational Representation on the Joint Council

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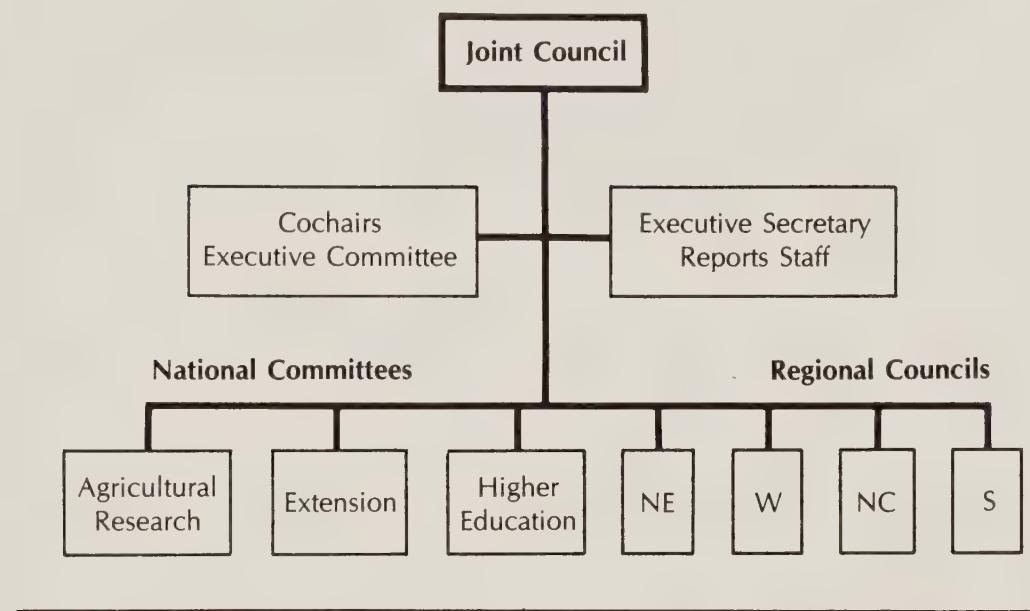
- Land-Grant Colleges and Universities:
  - Administrative Heads of Agriculture (CAHA)
  - Extension (ECOP)
  - Resident Instruction (RICOP)
  - Research (ESCOP)
  - Forestry (NAPFSC)
  - Veterinary Medicine
  - International Programs (ICOP)
  - 1890 Research
  - 1890 Extension
  - Home Economics
- American Association of State Colleges and Universities (AASCU)
- The American Association of State Colleges of Agriculture and Renewable Resources (AASCARR)
- Foundations
- Private Industry/Producers
- U.S. Department of Agriculture
  - Assistant Secretary for Science and Education\*
  - Agricultural Research Service (ARS)
  - National Agricultural Library (NAL)
  - Forest Service (FS)
  - Economic Research Service (ERS)
  - Extension Service (ES)
  - Cooperative State Research Service (CSRS)
  - Office of International Cooperation and Development (OICD)
  - Higher Education Programs (HEP)
  - Soil Conservation Service (SCS)
- White House Office of Science and Technology Policy (OSTP)
- International Organizations
  - International Science and Education Council (ISEC)
  - Board on International Food and Agricultural Development (BIFAD)
- National Agricultural Research and Extension Users Advisory Board (UAB)

\*Designated Federal cochair of the Joint Council on Food and Agricultural Sciences by the U.S. Congress.

## Appendix 3

### Joint Council Operational Organization

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